WEST Search History

DATE: Friday, October 10, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB,JPAB,EPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
L2	glycine N-methyltransferase and (S-adenosyl homocysteine hydrolase or SAHH)	2	L2
L1	glycine N-methyltransferase and S-adenosyl homocysteine hydrolase	2	L1

END OF SEARCH HISTORY

WEST

Generate Collection | Print

Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US 20020119491 A1

L2: Entry 1 of 2 File: PGPB Aug 29, 2002

PGPUB-DOCUMENT-NUMBER: 20020119491
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020119491 A1

TITLE: High expression and production of high specific activity recombinant S-adenosyl homocysteinase (SAHH) and improved assays for S-adenosylmethionine (SAM)

PUBLICATION-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Xu, Mingxu	San Diego	CA	US	
Han, Qinghong	San Diego	CA	US	

US-CL-CURRENT: 435/7.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc | Image

☐ 2. Document ID: CN 1416472 A WO 200151651 A2 AU 200126397 A US 20020119491 A1 EP 1250448 A2 KR 2002065925 A

L2: Entry 2 of 2 File: DWPI May 7, 2003

DERWENT-ACC-NO: 2001-451863
DERWENT-WEEK: 200353

TITLE: Assessing therapeutic levels of S-adenosylmethionine comprises measuring reaction products in sample containing glycine N-methyltransferase, (His) S-adenosyl homocysteine hydrolase and glycine

INVENTOR: HAN, Q; HOFFMAN, R M ; XU, M

PRIORITY-DATA: 2000US-176444P (January 14, 2000), 2001US-0759990 (January 12, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1416472 A	May 7, 2003		000	C12Q001/48
WO 200151651 A2	July 19, 2001	E	028	C12Q001/48
AU 200126397 A	July 24, 2001		000	C12Q001/48
US 20020119491 A1	August 29, 2002		000	G01N033/53
EP 1250448 A2	October 23, 2002	E	000	C12Q001/48
KR 2002065925 A	August 14, 2002		000	C12Q001/48

INT-CL (IPC): C07 K 14/44; C12 N 15/52; C12 Q 1/48; G01 N 33/53

ABSTRACTED-PUB-NO: US20020119491A
BASIC-ABSTRACT:

NOVELTY - Assessing therapeutic levels of S-adenosylmethionine (SAM) in a biological fluid sample comprising measuring one or more reaction products in a sample containing glycine N-methyltransferase (GMT), an S-adenosyl homocysteine hydrolase (SAHH) or His.SAHH, and glycine, where the level of one or more products is directly proportional to the level of SAM in the sample, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a kit for assaying a sample containing SAM comprising SAHH or His.SAHH, GMT, glycine and instructions for use;

(2) an assay comprising a biological sample containing SAM, and GMT, glycine, and SAHH or His.SAHH, where SAHH or His.SAHH activity results in a product which can be measured to determine the amount of SAM in the sample;

(3) an isolated nucleic acid (sequence not given in the specification);

(4) efficient production of SAHH by expressing a cassette comprising the nucleic acid of (3);

(5) purifying His.SAHH by precipitating a suspension containing His.SAHH produced from (4), with ammonium sulfate to produce a supernatant and a precipitate, and subjecting the supernatant to His Tag recognizing affinity chromatography;

(6) purifying His.SAHH with a single chromatography step by subjecting His.SAHH from (4) to Ni-NAT affinity chromatography;

(7) measuring homocysteine in a biological fluid by contacting the fluid with His.SAHH and measuring the homocysteine to SAH conversion;

(8) a composition comprising His.SAHH which yields a single band upon analysis by sodium dodecyl sulfate (SDS) polyacrylamide gel electrophoresis;

(9) depleting excess homocysteine in a biological fluid in vivo or ex vivo by contacting the fluid with SAHH; and

Escherichia coli host cells comprising the nucleic acids.

USE - The method is useful for assaying therapeutic levels of SAM in a biological sample. The method may be used as a part of a diagnostic protocol or as part of a therapeutic protocol, where conditions or progress of the therapy may be monitored. SAHH or His.SAHH may be used as a reagent, particularly screening for inhibitors and inactivators of the enzyme for use as reagents themselves as potential therapeutics, e.g. in cancer, malaria, arthritis and other diseases. Recombinant SAHH may be used as a therapeutic cancer gene in combination with SAH analogs.
ABSTRACTED-PUB-NO:

WO 200151651A EQUIVALENT-ABSTRACTS:

NOVELTY - Assessing therapeutic levels of S-adenosylmethionine (SAM) in a biological fluid sample comprising measuring one or more reaction products in a sample containing glycine N-methyltransferase (GMT), an S-adenosyl homocysteine hydrolase (SAHH) or His.SAHH, and glycine, where the level of one or more products is directly proportional to the level of SAM in the sample, is new.

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(1) a kit for assaying a sample containing SAM comprising SAHH or His.SAHH, GMT, glycine and instructions for use;

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(3) an isolated nucleic acid (sequence not given in the specification);

(4) efficient production of SAHH by expressing a cassette comprising the nucleic acid of (3);

(5) purifying His.SAHH by precipitating a suspension containing His.SAHH produced from (4), with ammonium sulfate to produce a supernatant and a precipitate, and subjecting the supernatant to His Tag recognizing affinity chromatography;

(6) purifying His.SAHH with a single chromatography step by subjecting His.SAHH from (4) to Ni-NAT affinity chromatography;

(7) measuring homocysteine in a biological fluid by contacting the fluid with His.SAHH and measuring the homocysteine to SAH conversion;

(8) a composition comprising His.SAHH which yields a single band upon analysis by sodium dodecyl sulfate (SDS) polyacrylamide gel electrophoresis;

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USE - The method is useful for assaying therapeutic levels of SAM in a biological sample. The method may be used as a part of a diagnostic protocol or as part of a therapeutic protocol, where conditions or progress of the therapy may be monitored. SAHH or His.SAHH may be used as a reagent, particularly screening for inhibitors and inactivators of the enzyme for use as reagents themselves as potential therapeutics, e.g. in cancer, malaria, arthritis and other diseases. Recombinant SAHH may be used as a therapeutic cancer gene in combination with SAH analogs.

Terms	Documents
glycine N-methyltransferase and (S-adenosyl homocysteine hydrolase or SAHH)	2

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=> file .nash

=> s glycine N-methyltransferase and S-adenosyl homocysteine hydrolase
L1             0 FILE MEDLINE
L2             0 FILE CAPLUS
L3             0 FILE SCISEARCH
L4             0 FILE LIFESCI
L5             0 FILE BIOSIS
L6             0 FILE EMBASE

TOTAL FOR ALL FILES
L7             0 GLYCINE N-METHYLTRANSFERASE AND S-ADENOSYL HOMOCYSTEINE
HYDROLAS
                 E

=> s glycine N-methyltransferase


TOTAL FOR ALL FILES
L14          360 GLYCINE N-METHYLTRANSFERASE

=> s S-adenosyl homocysteine hydrolase
TOTAL FOR ALL FILES
L21          146 S-ADENOSYL HOMOCYSTEINE HYDROLASE

=> s l14 and l21


TOTAL FOR ALL FILES
L28            0 L14 AND L21

=> s homocysteinase
TOTAL FOR ALL FILES
L35           46 HOMOCYSTEINASE

=> s l21 and l35
TOTAL FOR ALL FILES
L42            1 L21 AND L35

=> d ibib abs

L42  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2001:12645  CAPLUS
DOCUMENT NUMBER:          134:97502
TITLE:                    High-specificity homocysteinases and their
                          genes and use in hydrogen sulfide detection assay
for
                          homocysteine in biological fluids
INVENTOR(S):              Xu, Mingxu; Tan, Yuying; Han, Qinghong; Tang, Li
PATENT ASSIGNEE(S):       Anticancer, Inc., USA
SOURCE:                   PCT Int. Appl., 60 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   9
PATENT INFORMATION:
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001000853	A1	20010104	WO 2000-US17838	20000628
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6066467	A	20000523	US 1999-340991	19990628
US 6468762	B1	20021022	US 2000-549098	20000412
EP 1210443	A1	20020605	EP 2000-943262	20000628
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003503065	T2	20030128	JP 2001-506845	20000628

PRIORITY APPLN. INFO.:

US 1999-340991	A	19990628
US 2000-549098	A	20000412
US 1997-899776	B2	19970724
US 1997-918214	B2	19970825
US 1997-941921	B2	19971001
US 1997-974609	A2	19971119
US 1998-61337	A2	19980417
US 1998-122129	A2	19980724
WO 2000-US17838	W	20000628

AB **Homocysteinase** which have sufficient specificity for homocysteine, as compared to cysteine that hydrogen sulfide can be used as a measure of homocysteine in a biol. fluid even in the presence of substantial amts. of cysteine, exceeding the level of homocysteine, are disclosed. The enzyme of desired specificity can be readily prepd. by mutation and screening of naturally occurring **homocysteinases** or by constructing chimeric forms. Also disclosed is a method to identify **homocysteinases** of the desired specificity with respect to homocysteine and cysteine, as well as an improved method to assay for hydrogen sulfide by employing a fluorometric readout of a chromophore generated from said hydrogen sulfide. Also included in the scope of the invention is a method to assess the level of cysteine and homocysteine in the same sample. The gene and encoded amino acid sequences of a novel **homocysteinase** from Trichomonas vaginalis (clone pAC2-1) are provided.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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